

04/02/99

JC490 U.S. PTO



0928549-040399

PATENT APPLICATION TRANSMITTAL LETTER

ATTORNEY'S DOCKET NO.
ITALO ET AL-1

TO THE COMMISSIONER OF PATENTS AND TRADEMARKS:

Transmitted herewith for filing is a patent application of **GOFFI ITALO ET AL**FOR: **PROCESS FOR THE PRODUCTION OF VARIOUSLY PAINTED AND/OR DECORATED
ARTEFACTS BY MEANS OF THE TECHNIQUE OF TRANSFER FROM A SUBLIMABLE
COLOUR SUPPORT**

ENCLOSED ARE:

- ☐ sheet(s) of formal drawing(s)
☐ sheet(s) of informal drawing(s)
☒ an Assignment of the invention, with required cover sheet, to
 V.I.V. International S.p.A.
☒ Priority is claimed under 35 USC 119 for the following application(s):
 Italy No. MI98A 000780, Filed: 15 April 1998
☒ a certified copy of the aforesaid application is enclosed.
☐ a certified copy of the aforesaid application will be submitted in due course.
☒ Associate Power of Attorney enclosed.

CLAIMS AS FILED

FOR	NUMBER FILED	NUMBER EXTRA	RATE	FEE
TOTAL CLAIMS	5 — 20	0	X \$ 9.00	\$ 0.00
INDEPENDENT CLAIMS	2 - 3	0	X \$ 39.00	\$ 0.00
BASIC FEE (\$760)				
REDUCED FEE (\$380) <input type="checkbox"/> Independent Inventor <input checked="" type="checkbox"/> Small Business Concern				\$380.00
TOTAL FILING FEE:				\$380.00

- ☒ Verified Statement of ☐ Independent Inventor ☒ Small Business Concern
☒ The Commissioner is hereby authorized to charge any additional fees which may be required at any time during the prosecution of this application without specific authorization, except for the Base Issue Fee, or credit any overpayment to Deposit Account No. 03-2468. A duplicate copy of this sheet is enclosed.
☒ A Check in the amount of \$380.00 is enclosed. This check covers:
☒ the filing fee
☐ the filing fee and the Assignment recordal fee.
☒ Other Preliminary amendment

April 2, 1999

Date

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"EXPRESS MAIL" NO. EL 264 528 762 US

Date of Deposit April 2, 1999

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.101 on the date indicated above, and is addressed to the Assistant Commissioner of Patents, Washington, D.C. 20231.

Allison C. Collard

JC542 U.S. PTO
09/286119

04/02/99

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT or PATENTEE: V.I.V. INTERNATIONAL S.p.A.

SERIAL or PATENT No:

FILED or ISSUED:

GROUP:

TITLE: PROCESS FOR THE PRODUCTION OF VARIOUSLY PAINTED AND/OR DECORATED
ARTEFACTS BY MEANS OF THE TECHNIQUE OF TRANSFER FROM A SUBLIMABLE COLOUR
SUPPORT

SMALL ENTITY DECLARATION

☐ FOR INDEPENDENT INVENTOR(S)

As a below-named inventor, I hereby declare that I am an independent inventor who (1) has not assigned, granted, conveyed, or licensed, and (2) is under no obligation under contract or law, to assign, grant, convey, or license, any rights in the invention, to any person who could not likewise be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization, as defined in 37 CFR 1.9.

☒ FOR SMALL BUSINESS CONCERN

I hereby declare that V.I.V. INTERNATIONAL S.p.A. is a business concern which qualifies as a small business concern as defined in §1.9(d) - namely, (1) whose number of employees, including those of its affiliates, does not exceed 500 persons; and (2) which has not assigned, granted, conveyed, or licensed, and is under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who could not be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization under this section; and that the exclusive rights to the invention have been conveyed to and remain with the above-identified small business concern.

I further declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful, false statements and the like, so made, are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the patent application or any patent issuing thereon.

Each of the undersigned hereby grants the firm of COLLARD & ROE, P. C.

the power to insert in this
Small Entity Declaration any further identification which may be necessary or desirable to comply with the rules of the
U.S. Patent and Trademark Office for filing and acceptance of this Declaration.

INVENTOR(S)

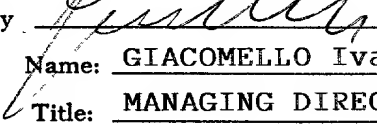
Name:
Date:

Name:
Date:

Name:
Date:

Name:
Date:

SMALL BUSINESS CONCERN:

By 
Name: GIACOMELLO Ivana
Title: MANAGING DIRECTOR
Date: 29. 03. 1999

By _____
Name: _____
Title: _____
Date: _____

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: GOFFI ITALO ET AL (1)

TITLE: PROCESS FOR THE PRODUCTION OF VARIOUSLY PAINTED AND/OR
DECORATED ARTEFACTS BY MEANS OF THE TECHNIQUE OF TRANSFER
FROM A SUBLIMABLE COLOUR SUPPORT

PRELIMINARY AMENDMENT

ATT: BOX NON-FEE APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Please amend the above-referenced application as follows:

IN THE CLAIMS:

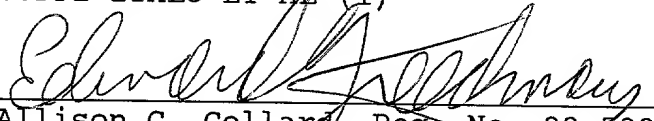
In claim 5, line 3 delete "claims 1 and 2" and insert "claim
1".

REMARKS

Claim 5 has been amended to remove the multiple dependency
from the claim. Claim 5 as rewritten now only depends from claim 1
rather than from claims "1 and 2".

Respectfully submitted,

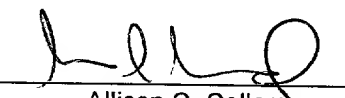
GOFFI ITALO ET AL (1)


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class mail in an envelope addressed to: ASSISTANT COMMISSIONER FOR PATENTS, Washington, D.C.
20231, on

date: April 2, 1999


Allison C. Collard

PROCESS FOR THE PRODUCTION OF VARIOUSLY PAINTED
AND/OR DECORATED ARTEFACTS BY MEANS OF THE TECHNIQUE
OF TRANSFER FROM A SUBLIMABLE COLOUR SUPPORT.

ABSTRACT

- 5 Process for the production of variously decorated
artefacts, comprising the steps of: preliminary
preparation of the surfaces of the artefact, possible
application of preliminary painting cycles or other
surface treatments; covering or tight-wrapping up of
10 the artefact with a transfer support bearing the
decorations desired, realised from gas-tight
thermoformable plastic material such as polyvinyl
alcohol; creation of a vacuum between said transfer
support and the artefact covered by the same, so that
15 the support adheres to the shape of the artefact; and
heating for the transfer of the decoration and the
polymerisation of the colours

DESCRIPTION

The present invention relates to a process for the realisation of artefacts from various materials, such as metals, ceramics, wood, plastics or the like, of various sizes and/or variously decorated.

More particularly, said process allows to obtain various surface finishings such as wood grains and marble veins or other patterns, and to transfer on the piece and/or the surface of the artefact to be decorated any ornamental pattern, even a complicated one, without deformations or defects of said pattern.

As is known, the present processes for the realisation of the decoration on metals involve realisation difficulties and complexities due to the fact that they require more or less automated systems which operate on the flat surface of strips or plates.

Processes and related apparatuses are known which allow to realise a polychrome and complex decoration on artefacts of various type and also having a non-flat surface, by means of the technique of the transfer of a pattern from a flexible support to the surface of said artefact by ink sublimation. As is known, such technique comprises the following steps:

wrapping up the artefact with a support containing the sublimable decoration, usually from paper, fabric or the like; inserting the artefact wrapped up in the transfer support into a container made of two
5 elastically deformable membranes fixed to two substantially rectangular frames hinged with each other; obtaining a vacuum in said container, so that the flexible membranes adhere to the artefact pressing the support against the surface of the
10 artefact; and submitting then the whole to heating. The pressure and the heat may be obtained by resistance heating, infrared rays or also an oil-bath oven. In this case, the piece to be decorated, suitably wrapped up by the decoration transfer
15 support, is immersed in the oil-bath oven, protected by an envelope or bag from elastically-deformable, high-temperature-resistant material. Processes of this type and the related apparatuses are described, for instance, in FR 2203321 (VILLEROY), EP 544603
20 (CLAVEAU), EP 451067 (CLAVEAU), and EP 606189 (CLAVEAU).

However, the above processes have the drawback that the pressure exercised by the elastically deformable membranes is not always uniform on the whole surface

of the support, and therefore irregularities can occur in the transfer of the decoration. Besides, it may happen that, during the creation of the vacuum, folds form in the support that wraps up the artefact, with ensuing defects in the transfer of the decoration and ensuing rejection of the decorated artefact obtained.

Besides, the transfer decoration processes according to the known art are rather complex and delicate as they require the use of the elastically deformable membranes which, besides, are liable to deteriorate and must be periodically repaired or replaced.

It is also known that all decorated artefacts must be suitably protected to prevent the deterioration from being damaged during the handling and transportation of the artefact or the installation or assembly of objects employing the decorated artefact; a system commonly used to protect the artefact consists in covering the same with a film from plastic material or the like, easily removable, which is removed once the decorated artefact has reached his destination or has been installed. This operation of protection of the artefact involves, consequently, additional costs that affect the overall cost of the artefact.

Object of this invention is to provide a process for the realisation of artefacts from various materials, such as steel, metal alloys, wood, plastics, ceramics, and the like, and also of big size, for instance, extruded artefacts with a length of up to 20 m, and rigid folded and shaped plates, so decorated as to reproduce exactly the aesthetic effect of various materials, such as wood, marble and the like, or anyhow provided on all the surface or part thereof with any ornamental pattern (floral, geometric or else), however complex and elaborated.

A further object is to provide various artefacts, variously decorated on the surfaces designed to remain on sight, also with complex patterns, that are substantially devoid of defects, irregularities in the pattern, and the like.

Another object of the invention is to provide a process of decoration by transfer comprising a reduced number of operating steps, particularly simple and highly reliable, that can lead to the realisation of finished and decorated artefacts suitable for many applications in many goods sectors, such as building, furniture, electric household appliances, domestic articles, and the like.

Still a further object of the invention is to provide a process of decoration of various artefacts allowing to obtain, through the same decoration process and without additional steps, an artefact whose surface
5 is already protected by a covering film to be removed after the transportation and/or the installation of said artefact.

These and still other objects that will be more clearly stressed by the following description are
10 achieved by a process for the realisation of various artefacts painted and/or variously decorated, from metals, ceramics, wood, plastics and the like, utilising the technique of the transfer of patterns or figures, monochromatic or polychromatic,
15 reproduced on a transfer support by the combined action of pressure and temperature, which process, according to the present invention, comprises the following steps:

- submitting the raw artefact to be decorated to
20 possible operations of preparation of the surfaces, such as cleaning, degreasing, chemical and/or electrolytic conversion, and possibly to one or more preliminary painting cycles, realisable with the use

of liquid or powder paints, to avoid diffusion phenomena with the colours of the transfer support,

- performing the wrapping up or tight-covering of the artefact to be decorated, with a sublimable colour transfer support, having the form of a sheet, strip, bag or envelope, comprising a supporting base from gas-tight thermoformable plastic material, the pattern or decoration to be transferred to the artefact to be decorated being carried on said support base,

- creating a vacuum between said artefact and said support, so as to cause the transfer support to uniformly adhere to the surface of the artefact to be decorated,

- submitting the so treated artefact to a heating action at temperatures on the order of 200-230°C, for a time of from about 30 seconds to 30 minutes, to perform the transfer and the polymerisation of the final colours from the transfer support to the artefact,

- removing, after the cooling and possibly after the handling and/or the installation of the decorated artefact, said exhausted supporting base from the decorated surface of the artefact.

More particularly, said supporting base from thermoformable, gas-tight plastic material is constituted by polyvinyl alcohol.

It has been found that the transfer support realised
5 from polyvinyl alcohol according to the present invention, which is gas-tight and thermoformable and which has also an excellent resistance to traction, allows to obtain the vacuum directly between the artefact to be decorated and the support, and also to
10 realise a perfect and uniform adhesion of the support to the artefact, eliminating in this way possible working rejects and greatly simplifying both the process and the installation, as well as the equipment necessary to realise it.

15 It has also been found that said exhausted supporting base, i.e. having no longer the pattern or decoration once this has been transferred on to the artefact surface, carries on the function of a protecting film of the decorated surface of the artefact and the same
20 artefact, protecting it from blows, scratches and the like during the steps of storage and/or transportation, during the operations of installation, such as for instance, sawing in case of profiles for doors and windows, and the like,

rendering in this way superfluous the application of the special protective films or paints, and allowing in this way a remarkable saving in both the protective material and the time employed to perform
5 the application of said protecting material.

According to a variant of this invention, said artefact wrapped up or covered with said sublimable colour transfer support which adheres by effect of the vacuum to the surface to be decorated, is
10 submitted to a first intermediate heating action at a temperature at which the thermoforming occurs, i.e the permanent adhesion of the transfer support to the artefact support, even at a temperature lower to that at which the transfer and the polymerisation, and
15 therefore the consolidation of the sublimable colours, occur.

This operation, carried out for instance at a temperature of from 100°C to 150°C for a period of some minutes, allows for instance to rationalise the
20 working cycle, by effecting an intermediate storing of the artefacts covered with the support, even though they are not finished, and to complete the cycle, according to the requirements, the demand of the market or the like.

Always according to the present invention, in order to ensure the adhesion of the inked support to the artefact to be decorated and/or to prevent deformations in the open profile artefacts, counter-templates or pads are applied in the cavities or recesses of the artefact to be decorated.

The counter-template is utilised in order to contrast the stresses ensuing from the creation of the vacuum, avoiding in this way deformations in the pieces to be decorated. The counter-template or pad may be obtained from any rigid or semi-rigid material resistant to work temperatures. Advantageously, materials such as silicone rubber, wood, aluminium, steel, etc., may be used.

More particularly, said final heating action is carried out by means of a set of infrared ray lamps, or said heating is carried out in the inside of a tunnel-oven or the like, with hot air circulation, produced by any energy source.

The final heating temperature is preferably maintained for a time of from 30 seconds to 30 minutes, having care to keep it under the decomposition temperature of polyvinyl alcohol or other thermoformable material.

The process object of the invention utilises for the applications on the section inks suitable even for outdoor exposure.

After the suitable and known operations of
5 preparation of the surfaces to be decorated, there may be performed, as already said, one or more preliminary painting cycles, obtainable with either liquid or powder paints, having the purpose of obtaining the background colour, and a possible
10 transparent layer to prevent phenomena of diffusion with the transfer colours from the support (transfer). Besides, for the practical realisation of the process according to the present invention, various apparatuses may be utilised that allow to
15 decorate artefacts of any shape and size, such as household articles, bricks, cans, vases and even open or closed section profiles of a length of up to about 20 meters, as well as folded and shaped plates having a size suitable to constitute parts of pieces of
20 furniture, electric household appliances, such as refrigerator doors and the like.

An apparatus suitable to realise variously decorated artefacts according to the present invention comprises:

- a work bench whereon an artefact to be decorated, possibly suitably pre-treated (cleaned, degreased and already treated with one or more preliminary layers of paint or submitted to colourless or coloured anodic oxidation) rests, and on which bench said
5 artefact is prepared by tight-closing it in the transfer support;

- a device to create a vacuum between said transfer support and the artefact to be decorated, so that
10 said support adheres and exercises a pressure on said wrapped up artefact;

- heating means located above said work bench, associated to ventilation and air circulation, positioned in a special hood.

15 Said transfer support may have the form of a sheet to be laid down on the surface to be decorated of the artefact placed on said work bench, through which a vacuum is obtained, or the form of a first sheet placed above the artefact and a second sheet placed
20 under the artefact, shaped like a bag, a stocking or the like.

More particularly, said heating means may be advantageously constituted, for instance, by a

battery of infrared ray lamps in a ventilated air room.

It has been found in the practice that the above described process allows to perfectly transfer the
5 decorations present on the transfer support on all of the zones, event not flat, of the profile, which allows to perfectly decorate even profiles having a section complex and of any size.

Obviously, in the practical realisation, structurally
10 and functionally equivalent modifications and variants may be made to the invention as described, illustrated and claimed, without departing from the protection scope of the invention.

CLAIMS

1. A process for the realisation of painted and/or variously decorated artefacts from metal materials, ceramic materials, wood, plastics and the like, utilising the technique of the transfer of monochrome or polychrome patterns or figures reproduced on a transfer support, by means of the combined action of pressure and temperature, characterised in that it comprises the following steps:
- 10 - submitting the raw artefact to be decorated to possible operations of preparation of the surfaces, such as cleaning, degreasing, chemical and/or electrolytic conversion, and possibly to one or more preliminary painting cycles, realisable with the use of liquid or powder paints, to avoid diffusion phenomena with the colours of the transfer support,
 - performing the wrapping up or tight-covering of the artefact to be decorated, with a sublimable colour transfer support, having the form of a sheet, a strip, a bag or an envelope, comprising a supporting base from gas-tight thermoformable plastic material, the pattern or decoration to be transferred on to the artefact to be decorated being carried on said supporting base,
- 15
- 20

- creating a vacuum between said artefact and said support, so as to cause the transfer support to uniformly adhere to the surface of the artefact to be decorated,

5 - submitting the so treated artefact to a heating action at temperatures on the order of 200-230°C, for a time of from about 30 seconds to 30 minutes, to perform the transfer and the polymerisation of the final colours from the transfer support to the
10 artefact,

- removing, after the cooling and possibly after the handling and/or the installation of the decorated artefact, said exhausted supporting base from the decorated surface of the artefact.

15 2. The process according to claim 1, characterised in that said supporting base from gas-tight thermoformable plastic material is constituted by polyvinyl alcohol.

3. The process according to claim 1, characterised in
20 that said artefact wrapped up or covered with said sublimable colour transfer support adhering by effect of the vacuum to the surface to be decorated, is submitted to a first intermediate heating action at a temperature at which the thermoforming occurs, i.e.

the deformation and permanent adhesion of the transfer support to the surface of the artefact.

4. The process according to claim 1, characterised in that said transfer support has the form of a sheet to
5 be laid down on the surface to be decorated of the artefact placed on a suitable work bench through which a vacuum is obtained, or the form of a first sheet placed above the artefact and a second sheet placed under the artefact, shaped like a bag, a
10 stocking or the like.

5. An apparatus for the realisation of the process to decorate artefacts according to the process of claims 1 and 2, characterised in that it comprises:

- a work bench whereon an artefact to be decorated,
15 possibly suitably pre-treated (cleaned, degreased and already treated with one or more preliminary layers of paint or submitted to colourless or coloured anodic oxidation) rests, and on which bench said artefact is prepared by tight-closing it in the
20 transfer support;
- a device to create a vacuum between said transfer support and the artefact to be decorated, so that said support adheres and exercises a pressure on said wrapped up artefact;

- heating means located above said work bench,
associated to ventilation and air circulation,
positioned in a special hood.

Declaration and Power of Attorney For Patent Application

Modulo di Dichiarazione Per Domanda di Brevetto

Italian Language Declaration

Io, sottoscritto inventore, dichiaro con il presente che:

Il mio domicilio, recapito postale e cittadinanza sono quelli indicati in calce accanto al mio nome,

Che mi reputo in buona fede essere l'inventore originario, primo e unico (qualora un solo nominativo appaia elencato appresso) o il coinventore (qualora i nominativi siano piu' di uno) primo e originario dell'invenzione da me rivendicata, e per la quale faccio domanda di brevetto. Tale invenzione e' chiamata

PROCESS FOR THE PRODUCTION OF VARIOUSLY PAINTED AND/OR DECORATED ARTEFACTS BY MEANS OF THE TECHNIQUE OF TRANSFER FROM A SUBLIMABLE COLOUR SUPPORT

e la sua descrizione e':

(contrassegnare uno dei due)

☐ que acclusa.

☐ E' stata presentata il _____ as

Come Domanda Numero _____

ed e' stata rettificata il _____
(se applicabile)

Dichiaro inoltre con il presente di aver letto e compreso il contenuto della specificazione sopra indicata, comprese le rivendicazioni, come rettificata da qualsiasi emendamento a cui si sia accennato sopra.

Riconosco il mio dovere di rivelare informazioni che costituiscano materiale per l'esame della presente domanda secondo i termini del Titolo 37, Codice dei Regolamenti Federali, Comma 1.56(a).

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

VARIOUSLY PAINTED AND/OR DECORATED ARTEFACTS BY MEANS OF THE TECHNIQUE OF TRANSFER FROM A SUBLIMABLE COLOUR SUPPORT

the specification of which

(check one)

☒ is attached hereto.

☐ was filed on _____ as

Application Serial No. _____

and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

Italian Language Declaration

Con il presente rivendico i benefici di priorit  per l'estero come stabilito dal Titolo 35, Codice degli Stati Uniti, Comma 119, per qualsiasi domanda di brevetto (o brevetti) straniera o per qualsiasi certificato d'invenzione sotto elencato, ed ho anche elencato qui sotto tutte le domande di brevetto e certificati d'invenzione stranieri aventi una data di presentazione anteriore a quella della domanda per la quale si rivendica la precedenza:

Prior foreign applications

Domanda dall'estero precedenti

MI98A 000780

ITALY

15, APRIL 1998

(Number)
(Numero)

(Country)
(Paese)

(Day/Month/Year Filed)
(Giorno, Mese de Anno di Presentazione)

Priority claimed

Precedenza Rivendicata

☒ Yes
Si

☐ No
No

(Number)
(Numero)

(Country)
(Paese)

(Day/Month/Year Filed)
(Giorno, Mese ed Anno di Presentazione)

☐ Yes
Si

☐ No
No

(Number)
(Numero)

(Country)
(Paese)

(Day/Month/Year Filed)
(Giorno, Mese ed Anno de Presentazione)

☐ Yes
Si

☐ No
No

Con il presente rivendico il beneficio previsto dal Titolo 35, Codice degli Stati Uniti, Comma 120, per qualsiasi domanda (o domande) di brevetto sotto indicata, ed entro i limiti nei quali il materiale indicato in ciascuna delle domande di brevetto non e' stato rivelato nella precedente domanda di brevetto americana nel modo previsto dal primo paragrafo del titolo 35, Codice degli Stati Uniti, Comma 112, riconosco il mio dovere di rivelare il materiale d'informazione, cos  come viene definito nel Titolo 37, Codice dei Regolamenti Federali, Comma 1.56(a), che possa essere venuto ad aggiungersi nel periodo intercorso tra la data di presentazione della domanda precedente e la data nazionale o internazionale PCT di presentazione di questa domanda:

I hereby claim the benefit under Title 35, United States Code,  120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code,  112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations,  1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)
(Numero di serie della
Domanda di Brevetto)

(Filing Date)
(Data di
presentazione)

(Stato Giuridico)
(Brevettato, In attesa
di Brevetto, Abbandonato)

(Status)
(patented, pending,
abandoned)

(Application Serial No.)
(Numero di serie della
Domanda di Brevetto)

(Filing Date)
(Data di
presentazione)

(Stato Giuridico)
(Brevettato, In attesa
di Brevetto, Abbandonato)

(Status)
(patented, pending,
abandoned)

Dichiaro inoltre con il presente che tutte le informazioni da me fornite sono in fede mia vere, e che tutte le affermazioni da me fatte sono in fede mia vere; dichiaro inoltre che quando ho fatto queste affermazioni ero al corrente del fatto che false dichiarazioni fatte intenzionalmente sono punibili con multa o incarcerazione, o ambedue, secondo quanto stabilito dalla sezione 1001 del Titolo 18 del Codice degli Stati Uniti, e che tali informazioni intenzionalmente false possono mettere a repentaglio la validit  della domanda di brevetto rilasciata in base ad esse.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Italian Language Declaration

PROCURA: Io, sottoscritto inventore, nomino con la presente il seguente Procuratore (o Procuratori) o Agente (Agenti) che s'incarica di perseguire questa pratica e di portare a termine tutte le operazioni necessarie all'Ufficio Brevetti e all'Ufficio Marchi di Fabbrica pertinenti a questa pratica. (Elencare il Nome e il Numero di Matricola)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

ALLISON C. COLLARD, Registration No. 22,532
EDWARD R. FREEDMAN, Registration No. 26,048
EDWIN H. KEUSEY, Registration No. 34,361

Recapito per la Corrispondenza:

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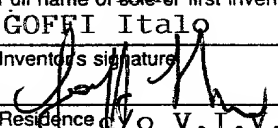
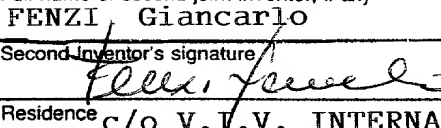
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Nome Completo dell'inventore primo ex ^{solo}	Full name of sole ^{first} inventor
	GOFFI Italo
Firma dell'inventore	Inventor's signature
	
Data	Date
	29.03.1999
Residenza	Residence
VIA COSTEGGIOLA - 37030 CAZZANO DI	c/o V.I.V. INTERNATIONAL S.p.A. TRAMIGNA VR - ITALY
Cittadinanza	Citizenship
	ITALIAN
Recapito o Casella Postale	Post Office Address
	c/o V.I.V. INTERNATIONAL S.p.A. VIA COSTEGGIOLA - 37030 CAZZANO DI TRAMIGNA VR - ITALY
Nome completo del secondo coinventore, se applicabile	Full name of second joint inventor, if any
	FENZI Giancarlo
Firma del secondo inventore	Second inventor's signature
	
Data	Date
	29.03.1999
Residenza	Residence
VIA COSTEGGIOLA - 37030 CAZZANO DI	c/o V.I.V. INTERNATIONAL TRAMIGNA VR - ITALY
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(Si prega di fornire stesse informazioni e firme di eventuali terzi e piu' coinventori.)

(Supply similar information and signature for third and subsequent joint inventors.)